

**CNYAPG  
March 2021**



**Central New York Association  
of Professional Geologists**

**Dr. Alka Singhal  
(Ramboll)**

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**17 March 2021 Virtual Meeting– 6:00 PM**

Dr. Alka Singhal (Ramboll) will present:

## **A NOVEL APPROACH TO MODEL BACK-DIFFUSION OF PERCHLORATE IN GROUNDWATER**

A regional groundwater model was developed for a site located in the southwest part of the United States. The groundwater flow in the area occurs predominantly in shallow quaternary alluvium, which overlies fine-grained geologic units. A novel modeling approach is being developed to accurately represent the effect of back-diffusion of contaminants from the fine-grained units to alluvium, with the goal of producing realistic estimates of remedial time frames. As a part of modeling efforts, a 3D geologic model was developed using LeapFrog software to support the conceptual site model and groundwater modeling efforts. Python was used to compile and summarize over 40,000 groundwater level observations from multiple sources, as well as to generate model input files and prepare visualizations of modeling results. Modeling results indicate that matrix diffusion is an important factor in prolonging remediation timeframes.

***This is a FREE virtual event—Please register through the CNYAPG website  
Zoom access instructions will be provided via email to registered attendees on the day of  
the presentation***

**Next virtual meeting - April 2021**

# CNYAPG Newsletter

The CNYAPG Newsletter is a monthly publication of the Central New York Association of Professional Geologists dedicated to sharing upcoming events, delivering regular articles of interest and providing the Membership a forum for discussion.

The newsletter is prepared by the Officers and Board of Directors of CNYAPG (listed below).

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## President's Message— March 2021

Welcome to month three of twelve of 2021. It is hard to believe it sometimes, but things do appear to be looking up. Vaccines against Covid-19 are becoming more widely available, the numbers of hospitalized Americans are declining, and spring is in the air. With springtime in the Northern hemisphere, and the ground starting to thaw, and streams beginning to run faster, only one thing comes to mind. Fieldwork! Yet, this is not the time to relax. If anything, we must all be extra careful. As you all know nature is an amazing thing, and viruses can be tricky little RNA monsters. Unlike bacteria that have a long history (appearing in the geologic record approximately 3.5 Billion years ago), viruses have a murky and mysterious evolutionary past. So, keep wearing your mask and maintaining social distance, and wash your hands frequently. Whether you are in the field, office, or lab, be safe.

Next, I want to thank Dr. John Halfman of Hobart & William Smith College for his well-attended talk on February 17<sup>th</sup>, on Cyanobacteria monitoring in the Finger Lakes and their impact on Water Quality. Work like Dr. Halfman is in the frontlines in protecting our Finger Lakes from both natural and human impacts. His work is yet another example of professors getting undergraduates involved in serious and impactful research programs. Kudos to Dr. Halfman, and the faculty and staff at Hobart & William Smith College.

I also want to correct an oversight on my part in last month's newsletter. I failed to recognize our 2021 CNYAPG Grant for Earth Science Student Research award winner, Danielle Minnick of Syracuse University. Danielle's research entitled: "***Drinking Water Vulnerability Mapping: PFAS Contamination in Hoosick Falls, NY.***" Was one of several excellent proposals from earth science students at a number of Central New York colleges and universities. The review committee found Danielle's proposal to be the most geologically and environmentally oriented, and technically interesting of all the proposals submitted. Consequently, the CNYAPG Board elected to provide Danielle an award check for \$1,000 on January 14th. Next year I look forward to hearing her presentation on Hoosick Falls. I would like to also extend my thanks to the Directors and Officers for volunteering their time to be on the Award Review Committee.

Last month was also an exciting month for the geosciences beyond New York State. Mount Etna, one of the major composite volcanoes in southern Italy, located on the island of Sicily, erupted spectacularly on February 22<sup>nd</sup>. The volcano belched lava and pyroclastics over the area near the volcano, a region where nearly a quarter of the island's population lives. For those of you who are interested in igneous petrology or volcanology, Mount Etna actually consists of two volcanic edifices, showing its compositional evolution at this convergent tectonic plate boundary. The composition of the oldest volcanic structure at the base of Mount Etna is that of a basaltic shield volcano. The younger stratovolcano, which was built on top of the shield structure, is composed of more intermediate extensive material (Trachyte which has mineralogy between rhyolite and dacite).

President's Message (continued)...

Now, with a fantastic February behind us, which included all three Mars missions successfully arriving at Mars, what is in store for March? Well, CNYAPG will be hosting Dr. Alka Singhal of the Ramboll Consulting Group on March 17th. She will be giving a presentation entitled: **“A novel approach to model back-diffusion of Perchlorate in groundwater.”** It is based on a regional groundwater model that was developed for a site located in the southwest part of the United States. It looks to be a very interesting talk.

Also, for you New York State P.Gs keep an eye out! Alpha Analytical, in cooperation with the New York State Council of Professional Geologists (NYSCPG) will be hosting an informational webinar on the status of current legislative bill regarding Continuing Education for Professional Geologists in New York State. This webinar is schedule for April 1<sup>st</sup>.

Finally, I need to mention that CNYAPG will be holding an election for positions on the board of directors. This year's positions on the ballot include: Treasurer, Secretary, Associate Vice President, and two Director Positions. The board is in the process of putting together a slate of candidates to be presented at the March 17<sup>th</sup> meeting. All CNYAPG board members are volunteering their time to see that CNYAPG continues to be a valuable asset to our professional community. Active Members and Honorary Life Members of CNYAPG in good standing are eligible to vote. The ballot also provides an opportunity to write-in candidates for any vacant position.

I hope to see all of you at our monthly meeting on the 17<sup>th</sup>, and as Sir Isaac Newton is reported to have said, "No great discovery was ever made without a bold guess." So, I say, "Be Bold!"

Calvin K. Prothro; P.G.  
President CNYAPG

## CNYAPG ELECTIONS

Annual elections for the CNYAPG Officers and for Board members will be taking place as usual this Month. The Board is currently developing a slate of candidates. **If you would be interested in serving on the Board of Directors or as an officer of CNYAPG** please contact Calvin Prothro ([prothro@sunyocc.edu](mailto:prothro@sunyocc.edu)) or Sean Pepling ([spepling@pwinc.com](mailto:spepling@pwinc.com)).

## CNYAPG Governance

### Membership Renewal

CNYAPG's membership period follows the CNYAPG meeting year from September through August. Renewals are due in September. To renew or become a new member, simply complete the membership form, available on our website at [www.cnyapg.org](http://www.cnyapg.org). Membership is only \$25 per year and all money received is used in support of our organization.

Join CNYAPG at our social networking groups on [Facebook](#) and [LinkedIn](#). These sites (always under development) will provide online forums for discussion, as well as another way to inform our members and networking opportunities. For more information about our social media sites e-mail us at [admin@cnyapg.org](mailto:admin@cnyapg.org).

The CNYAPG was founded in 1993 to strengthen and advance the geological sciences. CNYAPG conducts regular meetings on the third Wednesday of each month from September to May. Meetings feature dinner and distinguished speakers whose presentations invite comment and discussion.



[www.cnyapg.org](http://www.cnyapg.org)  
[www.twitter.com/cnyapg](https://www.twitter.com/cnyapg)

## Field Camp Scholarship

HMPGA is giving out up to two \$500 dollar scholarships for field camp to Geology students in New York State. We are looking for students (graduate or undergraduate) and encourage anyone to apply who is considering field camp this year. Information and application form are available at [hmpga.net](http://hmpga.net).

We are looking forward to gathering in person at the Century House once it is safe to do so. In the meantime, HMPGA held a successful first virtual meeting in February. On March 17<sup>th</sup> at 5pm, we are hosting Dr. Kirsty Tinto of Lamont-Doherty Earth Observatory, who will present “Understanding Ice Shelves – From Air and Sea.” Our April 21<sup>st</sup> presentation “Dinosaurs in the 21<sup>st</sup> and a Half Century” will be given by Dr. Jenn Anné, Lead Paleontologist & Manager of Natural Science Collection at The Children’s Museum of Indianapolis. Information and registration can be found at [hmpga.net](http://hmpga.net).

## Programming Note & Upcoming Events

As noted previously, CNYAPG has temporarily transitioned to a virtual Zoom platform beginning with the October 2020 meeting.

**March 17, 2021** 6:00 PM– CNYAPG– *A novel approach to model back-diffusion of Perchlorate in groundwater*

Dr. Alka Singhal — Ramboll

Virtual Meeting– [www.cnyapg.org](http://www.cnyapg.org)

**April 1, 2021** 12:00 PM– NYSCPG/Alpha Analytical–

*An update on continuing education for Professional Geologists in New York State*

Virtual Meeting– <https://attendee.gotowebinar.com/register/5035531671669737999>

**April 21, 2021** 6:00 PM– CNYAPG– *2020 Scholarship award winner*

Nicolás Pérez-Consuegra – Syracuse University

Virtual Meeting– [www.cnyapg.org](http://www.cnyapg.org)

**May 19, 2021** 6:00 PM– CNYAPG– *Topic TBD*

Dr. Joe Levy– Colgate University

Virtual Meeting– [www.cnyapg.org](http://www.cnyapg.org)

## We Need Your Input!

Do you have ideas of creative ways to engage members during this unprecedented time?

Interesting experiences to share? Email thoughts and ideas to [prothrocc@sunyocc.edu](mailto:prothrocc@sunyocc.edu)



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